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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,272	11/07/2001	Paul Janis Timans	AGX-45-CIP	9676

7590 01/29/2004  
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EXAMINER

FUQUA, SHAWNTINA T

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/040,272

Applicant(s)

TIMANS, PAUL JANIS

Examiner

Shawntina T. Fuqua

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) 2,4-8,11,16-26,31-33,37-52 and 58-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,9,10,12-15,27-30,34-36 and 53-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Species C, which read upon claims 27-30, 34-36, and 53-57 in Paper No. 8 is acknowledged. In addition, claims 1, 3, 9, 10, and 12-15 are generic to Species C as pointed out by Applicant in Paper No. 8 and will also be considered.
2. Claims 2, 4-8, 11, 16-26, 31-33, 37-52, and 58-81 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 9-10, 12, 27-30, 53, 55, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Dobson et al (US4959245).

Dobson et al discloses a process for heating semiconductor substrates comprising placing a substrate in a processing chamber (column 3, lines 30, 35-38), directing light energy (9) onto substrate at an angle of incidence greater than 0, 10, 40-85 degrees (column 5, lines 11-23) wherein the light energy contacts the substrate in a p-polarized plane (column 4, lines 7-23), wherein substrate is heated by light energy in combination with other energy sources such as light energy sources (column 6, lines 27-40), light energy source is a pulsed laser beam (9,

column 5, lines 11-15) which strikes the substrate to carry out an ion implantation anneal process (column 5, lines 32-34).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 13-15, 34-36, 54, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson et al as applied to claims 1, 3, 9-10, 12, 27-30, 53, 55, and 57 above, and further in view of Griner et al (US4780590).

Dobson et al discloses all of the recited subject matter except sensing the amount of light energy reflected off substrate and changing the configuration of light energy to change the amount of light absorbed by the substrate, redirecting light energy that is reflected off the substrate onto the substrate, scanning the laser beam over the surface of the substrate, and an electrical resistance heater. Griner et al discloses sensing the amount of light energy reflected off substrate and changing the configuration of light energy to change the amount of light absorbed by the substrate (column 8, line 54-column 9, line 32), redirecting light energy that is reflected off the substrate onto the substrate (column 9, lines 57-63), scanning the laser beam over the surface of the substrate (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the sensing and light energy control aspect, and scanning of Griner et al in the process of Dobson et al because sensing the amount of light energy reflected off substrate and changing the configuration of light energy to change the

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amount of light absorbed by the substrate, redirecting light energy that is reflected off the substrate onto the substrate, and scanning the laser beam over the surface of the substrate allows the substrate temperature to be controlled more accurately.

In addition, while neither Dobson et al or Griner et al discloses an electric resistance heater, Dobson et al does disclose a substrate heater in contact with the sample via the support stage. This disclosure suggests that the substrate support is heated and is acting as a heated plate. A heating plate with an electric resistance heater is conventional and well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included an electric resistance heater in the substrate support as a means to heat the substrate more uniformly.

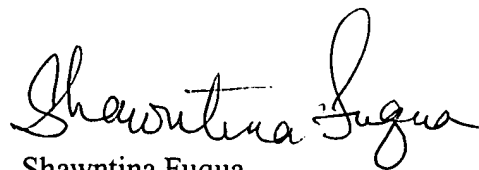
### *Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawntina T. Fuqua whose telephone number is (703) 305-2581. The examiner can normally be reached on Monday-Friday 8-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on (703) 308-1327. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

stf  
January 16, 2003

  
Shawntina Fuqua  
Patent Examiner  
Art Unit 3742